

SEQUENCE LISTING

<110> Floege, Juergen
Gazit, Gadi
Keyt, Bruce
LaRochelle, William
Lichenstein, Henri

<120> METHOD FOR THE TREATMENT OF NEPHRITIS
USING ANTI-PDGF-DD ANTIBODIES

<130> ABGENIX.052A

<150> 60/411,137
<151> 2002-09-16

<160> 97

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 377
<212> DNA
<213> homo sapiens

<400> 1
caggtgcagtc tggtgctgag gtgaagaagc ctggggcctc agtgaaggc 60
tcctcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc 120
actggacaag ggcttgagtg gatggatgg ataaacccta atagtggtaa cacagactat 180
gcacagaagt tccagggcag agtcaccatg accagggaca cctccataaag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccatat attattgtgt gagaggctt 300
ggatacagct ataattacga ctactattac ggtatggacg tctggggcca agggaccacg 360
gtcacccgtct cctcagt 377

<210> 2
<211> 125
<212> PRT
<213> homo sapiens

<400> 2
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30
Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Asn Pro Asn Ser Gly Asn Thr Asp Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95
Val Arg Gly Phe Gly Tyr Ser Tyr Asn Tyr Asp Tyr Tyr Gly Met

100 105 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 3
<211> 325
<212> DNA
<213> homo sapiens

<400> 3
gaaatttgtt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
cttcctgcga gggccagtca gagtgtagt agtagttact tagcctggta ccagcagaag 120
cctggccagg ctcccaggct cctcatctat gctacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctggaca gacttcactc tcaccatcg cagactggag 240
cctgaagatt ttgcagtgtt ttactgtcag cagttatggta gttcacccgt cagttttggc 300
caggggacca agctggaaat caagc 325

<210> 4
<211> 108
<212> PRT
<213> homo sapiens

<400> 4
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
20 25 30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95
Cys Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 5
<211> 379
<212> DNA
<213> homo sapiens

<400> 5
gaggtgcagc tgggtggagtc tggggggaggc ctggtaagc ctggggggtc cctgagactc 60
tcctgtcagc cctctggatt caacttcaga acctataaca tgaactgggt ccggcaggct 120
ccaggaaagg ggctggagtg ggtctcatcc attagtagta gtagtagtaa catataactac 180
gcagactcag tgaagggcccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acacgcctgag agccgaggac acggctgtat attactgtgc gagagatatt 300
atgattacgt ttgggggaat tatcgccctcg ttctactttg actactgggg ccagggaaacc 360
ctggtcaccg tctcctcag 379

<210> 6

<211> 126
<212> PRT
<213> homo sapiens

<400> 6
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Arg Thr Tyr
20 25 30
Asn Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ser Ile Ser Ser Ser Asn Ile Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Ile Met Ile Thr Phe Gly Gly Ile Ile Ala Ser Phe Tyr
100 105 110
Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 7
<211> 322
<212> DNA
<213> homo sapiens

<400> 7
gacatccaga tgaccaggc tccatcctcc ctgtctgcat ctgttaggaga cagagtcacc 60
atcaactggcc gggcaagtca gggcattaga aatgatttag gctggttca gcagaaacca 120
gggaaagccc ctaagcgccct gatctatgct gcatccagg tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcaactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgctcac tttcggcgga 300
gggaccaagg tggagatcaa ac 322

<210> 8
<211> 107
<212> PRT
<213> homo sapiens

<400> 8
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Gly Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Leu
85 90 95
Thr Phe Gly Gly Thr Lys Val Glu Ile Lys

100

105

<210> 9
<211> 361
<212> DNA
<213> homo sapiens

<400> 9
gaggtgcagc tggtcagtc tggaggaggc ttgatccagc ctggggggtc cctgagactc 60
tcctgtcagc cctctgggtt caccgtcagt agcaactaca tgagctgggt ccgccaggct 120
ccagggaggc ggctggagtg ggtctcagtt atttagcg gtggtagcac atactacgca 180
gactccgtga aggccgatt caccatctcc agagacaatt ccaagaacac gctgtatctt 240
caaataaca gcctgagagc cgaggacacg gccgtgtatt actgtgcggg aacggtgact 300
acgaattact actacggtat ggacgtctgg ggccaaggga ccacggtcac cgtctccctca 360
g 361

<210> 10
<211> 120
<212> PRT
<213> homo sapiens

<400> 10
Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
65 70 75 80
Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Gly Thr Val Thr Thr Asn Tyr Tyr Gly Met Asp Val Trp Gly Gln
100 105 110
Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 11
<211> 334
<212> DNA
<213> homo sapiens

<400> 11
gatatttgta tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg caaaagtaatg gataacaacta tttggattgg 120
tacctgcaga agccaggcga gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgggggtt tattactgca tgcaagctct acaaactctc 300
actttcggcg gaggaccaa ggtggagatc aaac 334

<210> 12

<211> 111
 <212> PRT
 <213> homo sapiens

<400> 12
 Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Gln Ser
 20 25 30
 Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
 85 90 95
 Leu Gln Thr Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

<210> 13
 <211> 379
 <212> DNA
 <213> homo sapiens

<400> 13
 caggtgcagc tgggggaggc gtggccagc ctggaaagtc cctgagactc 60
 tcctgtcag cgtctggatt caccttca gatctatggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggatg atggaaagtaa taaataactat 180
 gcagactccg tgaagggccc attcaccatc tccagagaca attccaagaa caccgtgtat 240
 ctgcaaatga acacgcctgag agccgaggac acggctgtgt attactgtgc gagagatcaa 300
 ggatacagat atgctggta ctactacgac tacggtatgg acgtctgggg ccaagggacc 360
 acggtcaccg tctcctcag 379

<210> 14
 <211> 126
 <212> PRT
 <213> homo sapiens

<400> 14
 Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Lys
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Gln Gly Tyr Arg Tyr Ala Gly Tyr Tyr Tyr Asp Tyr Gly
 100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 15
<211> 322
<212> DNA
<213> homo sapiens

<400> 15
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgttaggaga cagagtacc 60
atcaactgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaaagccc ctaagcgccct gatctatgct gcatccagtt tgcaaagtgg ggtccccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcaactctca caatcagcag cctgcagcct 240
gaagattttgc acaacttatta ctgtctacag cataatagtt acccgctcac tttcggcgga 300
gggaccaagg tggagatcaa ac 322

<210> 16
<211> 107
<212> PRT
<213> homo sapiens

<400> 16
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Leu
85 90 95
Thr Phe Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 17
<211> 379
<212> DNA
<213> homo sapiens

<400> 17
caggtgcagc tggtgcaagtc gggggctgag gtgaagaagc ctggggcctc agtgaaggc 60
tcctgcaggc cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc 120
actggacaag ggcttgagtg gatggatgg atgaacccaa acagtggtaa cacaggctat 180
gcacagaagt tccagggcag agtcaccatg accaggaaca cctccataag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagagggt 300
atagcagtgg ctgggacata ctactactac tacggatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctcag 379

<210> 18
<211> 126

```

<212> PRT
<213> homo sapiens

<400> 18
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1           5           10          15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20          25          30
Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35          40          45
Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
 50          55          60
Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
 65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85          90          95
Ala Arg Glu Gly Ile Ala Val Ala Gly Thr Tyr Tyr Tyr Tyr Tyr Gly
 100         105         110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115         120         125

```

```
<210> 19
<211> 322
<212> DNA
<213> homo sapiens

<400> 19
gacatccaga tgacccagtc tccatccccc ctgtctgcat ctgttaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaaagccc ctaagcgccc gatctatgt gcatccagg tgcaaagtgg ggtccccatca 180
aggttcagcg gcagtggatc tgggacagaaa ttcaactctca caatcagcag cctgcagccc 240
gaagattttg caacttattt ctgtctacag cataatagtt acccattccac tttcggccct 300
gggaccaaag tggatatcaa ac 322
```

<210> 20
<211> 107
<212> PRT
<213> homo sapiens

```

<400> 20
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
   1           5                   10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
   20          25                  30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
   35          40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
   50          55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
   65          70                  75                  80
Glu Asp Phe Ala Thr Tyr Phe Cys Leu Gln His Asn Ser Tyr Pro Phe
   85          90                  95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
  100         105

```

<210> 21
 <211> 379
 <212> DNA
 <213> homo sapiens

<400> 21
 caggtgcagc tggtcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggc 60
 tcctcaagg cttctggata caccttacc accatgtata tcaactgggt gcacaggcc 120
 actggacaag ggcttgagt gatggatgg atgaacccta acagtggtaa cacaggctat 180
 gcacagaagt tccagggcag agtcaccatg accaggaaca cctccataaag cacagcctac 240
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagacggt 300
 atgattacgt ttgggggagt tatcgtgcac tacggtatgg acgtctgggg ccaagggacc 360
 acggtcaccc tctcctcag 379

<210> 22
 <211> 126
 <212> PRT
 <213> homo sapiens

<400> 22
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Val Met Ile Thr Phe Gly Gly Val Ile Val His Tyr Gly
 100 105 110
 Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

<210> 23
 <211> 322
 <212> DNA
 <213> homo sapiens

<400> 23
 gacatccaga tgacctcagtc tccatccctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcaacttgcc gggcaagtca gggcattaga aatgatttag gctggatca gcagaaacca 120
 gggaaaagccc ctaagcgcc tataatgtct gcatccagg tgcaaagtgg ggtccccatca 180
 aggttcagcg gcagtggatc tgggacatgt ttcaactctca caatcagcag cctgcagcct 240
 gaagattttgc caacttatta ctgtctacag cataatagtg acccgtgcag ttttggccag 300
 gggaccaagc tggagatcag ac 322

<210> 24
 <211> 107

<212> PRT

<213> homo sapiens

<400> 24

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ile | Gln | Met | Thr | Gln | Ser | Pro | Ser | Ser | Leu | Ser | Ala | Ser | Val | Gly |
| 1 | | | | | | | | | | 10 | | | | | 15 |
| Asp | Arg | Val | Thr | Ile | Thr | Cys | Arg | Ala | Ser | Gln | Gly | Ile | Arg | Asn | Asp |
| | | | | 20 | | | | | 25 | | | | | | 30 |
| Leu | Gly | Trp | Tyr | Gln | Gln | Lys | Pro | Gly | Lys | Ala | Pro | Lys | Arg | Leu | Ile |
| | | | | | | | | | | 35 | 40 | | | | 45 |
| Tyr | Ala | Ala | Ser | Ser | Leu | Gln | Ser | Gly | Val | Pro | Ser | Arg | Phe | Ser | Gly |
| | | | | | | | | | 50 | 55 | | | | | 60 |
| Ser | Gly | Ser | Gly | Thr | Asp | Phe | Thr | Leu | Thr | Ile | Ser | Ser | Leu | Gln | Pro |
| | | | | | 65 | | | 70 | | | 75 | | | | 80 |
| Glu | Asp | Phe | Ala | Thr | Tyr | Tyr | Cys | Leu | Gln | His | Asn | Ser | Asp | Pro | Cys |
| | | | | | | | | 85 | | 90 | | | | | 95 |
| Ser | Phe | Gly | Gln | Gly | Thr | Lys | Leu | Glu | Ile | Arg | | | | | |
| | | | | | | | 100 | | | 105 | | | | | |

<210> 25

<211> 379

<212> DNA

<213> homo sapiens

<400> 25

gaggtgcagc tggcgtcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtgagg gttctggata cagcttacc agctactgga tcggctgggt gcgccagatg 120
cccgaaaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
agccccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtggaa gcagcctgaa ggcctcgac accgcccattgt attactgtgc gagacatgta 300
tcgtattact atgtttcggg gagttattat aacgtcttg actactgggg ccagggacc 360
ctggtcaccg tctcctcag 379

<210> 26

<211> 126

<212> PRT

<213> homo sapiens

<400> 26

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Val | Gln | Leu | Val | Gln | Ser | Gly | Ala | Glu | Val | Lys | Lys | Pro | Gly | Glu |
| 1 | | | | | | | | | 10 | | | | | 15 | |
| Ser | Leu | Lys | Ile | Ser | Cys | Glu | Gly | Ser | Gly | Tyr | Ser | Phe | Thr | Ser | Tyr |
| | | | | | | | | 20 | 25 | | | | 30 | | |
| Trp | Ile | Gly | Trp | Val | Arg | Gln | Met | Pro | Gly | Lys | Gly | Leu | Glu | Trp | Met |
| | | | | | | | | 35 | 40 | | | | 45 | | |
| Gly | Ile | Ile | Tyr | Pro | Gly | Asp | Ser | Asp | Thr | Arg | Tyr | Ser | Pro | Ser | Phe |
| | | | | | | | | 50 | 55 | | | | 60 | | |
| Gln | Gly | Gln | Val | Thr | Ile | Ser | Ala | Asp | Lys | Ser | Ile | Ser | Thr | Ala | Tyr |
| | | | | | 65 | | | 70 | | 75 | | | | | 80 |
| Leu | Gln | Trp | Ser | Ser | Leu | Lys | Ala | Ser | Asp | Thr | Ala | Met | Tyr | Tyr | Cys |
| | | | | | | | | 85 | | 90 | | | | 95 | |
| Ala | Arg | His | Val | Ser | Tyr | Tyr | Val | Ser | Gly | Ser | Tyr | Tyr | Asn | Val | |
| | | | | | | | 100 | | 105 | | | | 110 | | |
| Phe | Asp | Tyr | Trp | Gly | Gln | Gly | Thr | Leu | Val | Thr | Val | Ser | Ser | | |

115

120

125

<210> 27
<211> 322
<212> DNA
<213> homo sapiens

<400> 27
gacatccaga tgacccagtc tccatccccc ctgtctgcat ctgtaggaga cagagtacc 60
atcaacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagatacca 120
gggaaagccc ctaagcgccct gatctatgct gcatccagtt tgcaacgtgg ggccccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcaactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 28
<211> 107
<212> PRT
<213> homo sapiens

<400> 28
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Gly Trp Tyr Gln Gln Ile Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Arg Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 29
<211> 379
<212> DNA
<213> homo sapiens

<400> 29
caggtgcagc tgggggaggc gtgggtccagc ctgggaggc cctgagactc 60
tcctgtcagc cgctctggatt cagtttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagat atatggatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acgctgtgtt attattgtgc gagagatcag 300
ggatacagct atggttacgt ctactacgac tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctccctcag 379

<210> 30
<211> 126
<212> PRT

<213> homo sapiens

<400> 30
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Asp Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Gln Gly Tyr Ser Tyr Gly Tyr Val Tyr Tyr Asp Tyr Gly
100 105 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 31

<211> 322

<212> DNA

<213> homo sapiens

<400> 31
gacatccaga tgaccttgc tccatccccc ctgtctgcat ctgttaggaga cagagtccacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgccct gatctatgct gcatccagg ttcaaagtgg ggtccccatca 180
aggttcagcg gcagtggatc tgggacagag ttcaactctca caatcagcag cctgcagcct 240
gaagattttt caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 32

<211> 107

<212> PRT

<213> homo sapiens

<400> 32
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 33

<211> 379

<212> DNA

<213> homo sapiens

<400> 33

gaggtgcagc tgggtgcagtc gggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgttaagg gttctggata caggtttacc agctactgga tcggctgggt gcggcagatg 120
cccgaaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgcccgtt attactgtgc gagacatgga 300
tcgtattatt atggttcggaa gacttattat aatgtcttg actactgggg ccagggaaacc 360
ctggtcaccg tctcctcag 379

<210> 34

<211> 126

<212> PRT

<213> homo sapiens

<400> 34

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Val | Gln | Leu | Val | Gln | Ser | Gly | Ala | Glu | Val | Lys | Lys | Pro | Gly | Glu |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Ser | Leu | Lys | Ile | Ser | Cys | Lys | Gly | Ser | Gly | Tyr | Arg | Phe | Thr | Ser | Tyr |
| | | | | | | | | | 20 | | | 25 | | 30 | |
| Trp | Ile | Gly | Trp | Val | Arg | Gln | Met | Pro | Gly | Lys | Gly | Leu | Glu | Trp | Met |
| | | | | | | | 35 | | 40 | | | 45 | | | |
| Gly | Ile | Ile | Tyr | Pro | Gly | Asp | Ser | Asp | Thr | Arg | Tyr | Ser | Pro | Ser | Phe |
| | | | | | | | 50 | | 55 | | | 60 | | | |
| Gln | Gly | Gln | Val | Thr | Ile | Ser | Ala | Asp | Lys | Ser | Ile | Ser | Thr | Ala | Tyr |
| 65 | | | | | | | 70 | | | 75 | | | 80 | | |
| Leu | Gln | Trp | Ser | Ser | Leu | Lys | Ala | Ser | Asp | Thr | Ala | Met | Tyr | Tyr | Cys |
| | | | | | | | 85 | | | 90 | | | 95 | | |
| Ala | Arg | His | Gly | Ser | Tyr | Tyr | Gly | Ser | Glu | Thr | Tyr | Tyr | Asn | Val | |
| | | | | | | | 100 | | 105 | | | 110 | | | |
| Phe | Asp | Tyr | Trp | Gly | Gln | Gly | Thr | Leu | Val | Thr | Val | Ser | Ser | | |
| | | | | | | | 115 | | 120 | | | 125 | | | |

<210> 35

<211> 322

<212> DNA

<213> homo sapiens

<400> 35

gacatccaga tgacccagtc tccatccctcc ctgtctgcat ctgttaggaga cagagtcacc 60
atcaacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaaagccc ctaagcgcct gatctatgct gcaccccgat ttgcaaagtgg ggtccccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcaactctca caatcagcag cctgcagcct 240
gaagattttgc caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 36

<211> 107

<212> PRT

<213> homo sapiens

<400> 36
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 37

<211> 388

<212> DNA

<213> homo sapiens

<400> 37

gagggtgcagc tgggtgcagtc gggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgttaagg gttctggata cagcttacc agctactgga tcggctgggt gcgccagatg 120
cccgaaaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
agccccgtcct tccaaggcca ggcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgcccattgt attactgtgc gagacacgtg 300
gatgttagggg ctacgattgg gggatattac tattactacc acggtatgga cgtctgggc 360
caagggacca cggtcaccgt ctcctcag 388

<210> 38

<211> 129

<212> PRT

<213> homo sapiens

<400> 38

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
20 25 30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
50 55 60
Gln Gly Gln Ala Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65 70 75 80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Arg His Val Asp Val Gly Ala Thr Ile Gly Gly Tyr Tyr Tyr Tyr
100 105 110
Tyr His Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 39
<211> 340
<212> DNA
<213> homo sapiens

<400> 39
gatatttgtga tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catagtaatg gataacaacta tttggattgg 120
tacctgcaga agccaggcga gtctccacaa ctctgtatct atttgggttc taatcgcc 180
tccggggtcc ctgacaggtt cagttggcgtt ggatcaggca cagattttac actgaaaatc 240
agcagagtggtt aggctgacga tgttgggtt tattactgca tgcaagctct acaatctc 300
atgtgcgtt ttggccaggc gaccaagctg gagatcaaac 340

<210> 40
<211> 113
<212> PRT
<213> homo sapiens

<400> 40
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Asp Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
85 90 95
Leu Gln Ser Leu Met Cys Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile
100 105 110
Lys

<210> 41
<211> 382
<212> DNA
<213> homo sapiens

<400> 41
caggttcagc tgggtgcagtc gggagctgag gtgaagaagc ctggggcctc agtgaaggc 60
tcctgcagg cttctggta caccttacc agctatggta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatggatgg atcagcgctt acaatggtaa cacaaactat 180
gcacagaagc tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240
atggagctga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcat 300
tactatgata gtatgtatta tctctactac tactacgggtt tggacgtctg gggccaagg 360
accacggcgtca ccgtctcctc ag 382

<210> 42
<211> 127
<212> PRT
<213> homo sapiens

<400> 42
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30
Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
50 55 60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp His Tyr Tyr Asp Ser Ser Asp Tyr Leu Tyr Tyr Tyr Tyr
100 105 110
Gly Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 43
<211> 322
<212> DNA
<213> homo sapiens

<400> 43
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgttaggaga cagagtacc 60
atcaacttgc gggcgagtca gggcattagc aattattttag cctggtatca gcagaaacca 120
gggaaagtcc ctaagctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttgc caacttatta ctgtcaaaaag tataacagtgc ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa ac 322

<210> 44
<211> 107
<212> PRT
<213> homo sapiens

<400> 44
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
35 40 45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 45
<211> 382
<212> DNA
<213> homo sapiens

<400> 45
caggtgcagc tggggaggc ggggggaggc gtggtccagc ctgggaggc cctgagactc 60
tcctgtcag cgctctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggaggc ggtggcaatt atatggatg atggaaatga taaaatactat 180
gcagactccg tgaaggggccg cttcacccgtc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagccttag agccgaggac acggctgtgt attactgtgc gagaggat 300
tactatgata gtagtgatta tctctactac tactacggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc ag 382

<210> 46
<211> 127
<212> PRT
<213> homo sapiens

<400> 46
Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Ile Ile Trp Tyr Asp Gly Asn Asp Lys Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Gly Tyr Tyr Tyr Asp Ser Ser Asp Tyr Leu Tyr Tyr Tyr Tyr
100 105 110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 47
<211> 322
<212> DNA
<213> homo sapiens

<400> 47
gacatccaga tgacccagtc tccatccccc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc aattattttag cctggtatca gcagaaacca 120
gggaaagtcc ctaacctccct gatctatgtc gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggtc tgggacagat ttctctctca ccatcagcag cctgcagcct 240
gaagatgttgc cagcttatttc ctgtcaaaag tgtaacagtg cccccgtggac gttcggccaa 300
gggaccacgg tggagatcaa ac 322

<210> 48
 <211> 107
 <212> PRT
 <213> homo sapiens

<400> 48
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Asn Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Val Ala Ala Tyr Tyr Cys Gln Lys Cys Asn Ser Ala Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Thr Val Glu Ile Lys
 100 105

<210> 49
 <211> 379
 <212> DNA
 <213> homo sapiens

<400> 49
 gaggtgcagc tggtgccatc gggAACAGAG gtgaaaaAGC ccggggagtc tctgaagatc 60
 tcctgttaagg gttctggata caggtttacc agctactgga tcggctgggt gcgccagatg 120
 cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
 agccccgtctt tccaaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
 ctgcagtggc gcagcctgaa ggcctcgac accggcatgt attactgtgc gagacatgga 300
 tcgtattact ataattcggg gagttattat aacgtctttg actactgggg ccagggaaacc 360
 ctggtcaccg tctcctcag 379

<210> 50
 <211> 126
 <212> PRT
 <213> homo sapiens

<400> 50
 Glu Val Gln Leu Val Gln Ser Gly Thr Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Arg Phe Thr Ser Tyr
 20 25 30
 Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg His Gly Ser Tyr Tyr Asn Ser Gly Ser Tyr Tyr Asn Val

100 105 110
Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 51
<211> 322
<212> DNA
<213> homo sapiens

<400> 51
gacatccaga tgaccaggc tccatcctcc ctgtctgc atctgttgc gacatccacc 60
atcaatcgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgccct gatctatgct gcatccagg tgcaaagtgg ggtccccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcaactctca caatcagcag cctgcagcc 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 52
<211> 107
<212> PRT
<213> homo sapiens

<400> 52
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 53
<211> 376
<212> DNA
<213> homo sapiens

<400> 53
caggtgcagc tgggtgcagtc gggggctgag gtgaagaagc ctggggcctc agtgaaggc 60
tcctgcaggc cttctggata caccttcacc agttatgata tcaactgggt gcgcacaggcc 120
actggacaag ggcttgatgt gatggatgg atgaacccta acagtggtaa cacaggctat 180
gcacagaagt tccagggcag agtcaccatg accaggaaca cctccataag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagaggcagt 300
ggatacagct atggttacga ctactactac ggtatggacg tctggggcca agggaccacg 360
gtcacccgtct cctcag 376

<210> 54

<211> 125
 <212> PRT
 <213> homo sapiens

<400> 54
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gly Ser Gly Tyr Ser Tyr Gly Tyr Asp Tyr Tyr Tyr Gly Met
 100 105 110
 Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

<210> 55
 <211> 322
 <212> DNA
 <213> homo sapiens

<400> 55
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgttaggaga cagagtcacc 60
 atcaattgcc gggcgagtca gggcattagc aatgatttag cctggtatca gcagaaacca 120
 gggaaaatgc ctaagctcct gatctatgct gcatccactt tgcaattagg ggtcccatct 180
 cggttcagtg gcagtggatc tggcacagat ttcaactctca ccatcagcag cctgcagcct 240
 gaagatgtt caacttatta ctgtcaaaaag tataacagtg ccccattcac tttcgccct 300
 gggaccaaag tggatatcaa ac 322

<210> 56
 <211> 107
 <212> PRT
 <213> homo sapiens

<400> 56
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Asn Cys Arg Ala Ser Gln Gly Ile Ser Asn Asp
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr Leu Gln Leu Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Phe
 85 90 95
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys

100

105

<210> 57
<211> 379
<212> DNA
<213> homo sapiens

<400> 57
caggtgcagc tggtcgagtc gggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcagg cttctggata ctccctcacc agttatgata tcaactgggt gcacaggcc 120
actggacaag ggcttgagtg gatggatgg atgaacccta acaatggtaa cacaggctat 180
gcacagaagt tccaggcgag agtcaccatg accaggaaca cctccataaag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagatatt 300
gtagtggtgg taactgctac ggactactac tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctcag 379

<210> 58
<211> 126
<212> PRT
<213> homo sapiens

<400> 58
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Ser Tyr
20 25 30
Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Met Asn Pro Asn Asn Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Ile Val Val Val Val Thr Ala Thr Asp Tyr Tyr Tyr Gly
100 105 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 59
<211> 322
<212> DNA
<213> homo sapiens

<400> 59
gacatccaga tgacccagtc tccatccctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatTTTGCT gcatccagg tgccaagtgg ggtccccatca 180
aggTTcagcg gcagtggatc tggcacagaa ttcaactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag catagtggtt accctccgac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 60

<211> 107
<212> PRT
<213> homo sapiens

<400> 60
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45
Phe Ala Ala Ser Ser Leu Pro Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Ser Gly Tyr Pro Pro
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 61
<211> 376
<212> DNA
<213> homo sapiens

<400> 61
caggttcagc tggtcagtc gggagctgag gtgaagaagc ctggggcctc agtgaaggc 60
tcctgcaagg cttctggta caccttacc agctatggta tcagctgggt gcgcacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcagcgctt acaatggtaa cacaactat 180
gcacagaagc tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240
atggagctga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatgtt 300
gaatattact atgatggtag tggttattac tactttgact actggggcca gggAACCTG 360
gtcaccgtct cctcag 376

<210> 62
<211> 125
<212> PRT
<213> homo sapiens

<400> 62
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30
Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
50 55 60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Val Glu Tyr Tyr Tyr Asp Gly Ser Gly Tyr Tyr Tyr Phe
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 63
<211> 322
<212> DNA
<213> homo sapiens

<400> 63
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtacc 60
atcaacttgtc gggcgagtca gggttattagc agctggtag cctggtatca gcagaaacca 120
gggaaaagccc ctaagctcct gatctatgct gcatccattt tgcaaagtgg ggtccccatca 180
aggttcagcg gcagtggtc tgggacagat ttcaactctca ccatcagcag cctgcagcct 240
gaggattttg catcttacta ttgtcaacag tctaacagtt tccctcgac gttcggccaa 300
gggaccaagg tggagatcaa ac 322

<210> 64
<211> 107
<212> PRT
<213> homo sapiens

<400> 64
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Ala Ala Ser Ile Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Ser Asn Ser Phe Pro Arg
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 65
<211> 382
<212> DNA
<213> homo sapiens

<400> 65
caggtgcagc tggtgcaagtc gggggctgag gtgaagaagc ctggggcctc agtgaaggc 60
tcctgcagg cttctggata caccttcacc agttatgata tcaactgggt gcgcacaggcc 120
actggacaag ggcttgagtg gatggatgg atgaacccta acagtggta cacaggctat 180
gcacagaagt tccagggcag agtcaccatg accaggaaca cctccataag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt atttctgtgc gagaatgagg 300
gatatagtgg ctacgagcta ttactactac ttctacggta tggacgtctg gggccaagg 360
accacggcagc ccgtctcctc ag 382

<210> 66
<211> 127

<212> PRT
<213> homo sapiens

<400> 66

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30
Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Met Asn Pro Asn Ser Gly Asp Thr Gly Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95
Ala Arg Met Arg Asp Ile Val Ala Thr Ser Tyr Tyr Tyr Phe Tyr
100 105 110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 67
<211> 334
<212> DNA
<213> homo sapiens

<400> 67

gatattgtga tgactcagtc tccactctcc ctggccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catactaacta gataacaacta tttggattgg 120
tacctgctga agccaggcgtca gtctccacag ctccctgatct atttgggttc tagtcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgaa aggctgagga tgggggtt tattactgca tgcaaactct acaaactatc 300
accttcggcc aagggacacg actggagatt aaac 334

<210> 68
<211> 111
<212> PRT
<213> homo sapiens

<400> 68

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Leu Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Ser Arg Ala Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Thr
85 90 95
Leu Gln Thr Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105 110

```

<210> 69
<211> 379
<212> DNA
<213> homo sapiens

<400> 69
gaggtgcagc tggtcagtc gggagcttag gtaaaaaagc cggggagtc tctgaagatc 60
tcctgttaagg ttctggata cagtttacc agctactgga tcggctgggt gcggcagatg 120
cccgaaaag gcctggagtg gatggggatc atctatcctg gtgactctga tgccaaatac 180
agccccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtggaa gcaaggctgaa ggcctggac accgcccattgt attactgtgc gagacactat 300
gattacgttt ggaggaatta tcggtatatac gggtggttcg acccctgggg ccaggaaacc 360
ctggtcaccg tctcctcag 379

<210> 70
<211> 126
<212> PRT
<213> homo sapiens

<400> 70
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
20 25 30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Ala Lys Tyr Ser Pro Ser Phe
50 55 60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65 70 75 80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Arg His Tyr Asp Tyr Val Trp Arg Asn Tyr Arg Tyr Thr Gly Trp
100 105 110
Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 71
<211> 325
<212> DNA
<213> homo sapiens

<400> 71
gaaatttgtt tgacgcagtc tccaggcacc ctgtcttgc ctccaggaga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctccccaggct cctcatctat ggtcatcca acagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacctcaactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgtt ttactgtcag cagttggta gtcactatt cacttcggc 300
cctggacca aagtggatat caaac 325

<210> 72
<211> 108

```

<212> PRT
<213> homo sapiens

<400> 72
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
20 25 30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Leu
85 90 95
Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
100 105

<210> 73
<211> 379
<212> DNA
<213> homo sapiens

<400> 73
caggtgcagc tggtcagtc gggggctgag gtgaagaagc ctggggcctc agtgaaggc 60
tcctgcagg cttctggata cacccacc acttatgata tcaactgggt gcgcacaggcc 120
actggacaag ggcttgatgt gatggatgg atgaacccta acagtggtaa cacaggctat 180
gcacagaagt tccagggcag agtcaccatg accaggaaca cctccctaag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagatatt 300
gtagtggtagctgctac caactactac aacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctcag 379

<210> 74
<211> 126
<212> PRT
<213> homo sapiens

<400> 74
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
20 25 30
Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Leu Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Ile Val Val Val Ala Ala Thr Asn Tyr Tyr Asn Gly
100 105 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser

115

120

125

<210> 75
<211> 560
<212> DNA
<213> homo sapiens

<400> 75
tcaggtgcag ctggagcagt cgggagcaga ggtaaaaag cccggggagt ctctgaagat 60
ctccgtaaag gttctggat ataattttat cagctactgg atcggctggg tgcgccagat 120
gccccggaaa gcctggagt ggatggggat catctctctt ggtgactctg ataccagata 180
cagccccgtcc ttccaaggcc aggtcaccat ctcagccgac aagtccatca gcaccgccta 240
cctgcagtgg agcagcctga aggccctcga caccgcctatg tattactgtg cgagacagta 300
tgattacgtt tggggagtt atcggatatac agggtggttc gaccctggg gccaggaaac 360
cctggtcacc gtctcctcag cttccaccaa gggcccatcg gtcttcccccc tggcgccctg 420
ctccaggagc acctccgaga gcacagccgc cctgggctgc ctggtcaagg actacttccc 480
cgaaccggtg acggtgtcgt ggaactcagg cgctctgacc agcggcgtgc acaccttccc 540
agctgtccta cagtcctcag 560

<210> 76
<211> 186
<212> PRT
<213> homo sapiens

<400> 76
Gln Val Gln Leu Glu Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Asn Phe Ile Ser Tyr
20 25 30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Ser Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
50 55 60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65 70 75 80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Arg Gln Tyr Asp Tyr Val Trp Gly Ser Tyr Arg Tyr Thr Gly Trp
100 105 110
Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
115 120 125
Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr
130 135 140
Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
145 150 155 160
Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
165 170 175
His Thr Phe Pro Ala Val Leu Gln Ser Ser
180 185

<210> 77
<211> 359
<212> DNA

<213> homo sapiens

<400> 77

gaaacgcagc tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgtagc agcaacttag cctggatcca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccatgg tateccagcc 180
agtttcagtgcagtg tggacagag ttcaactctca ccatcagcag cctgcagtct 240
gaagattttcgttata ctgtcagcag tataataact ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcc 359

<210> 78

<211> 119

<212> PRT

<213> homo sapiens

<400> 78

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Gln | Leu | Thr | Gln | Ser | Pro | Ala | Thr | Leu | Ser | Val | Ser | Pro | Gly |
| 1 | | | | | | | | | | | | | | | 15 |
| Glu | Arg | Ala | Thr | Leu | Ser | Cys | Arg | Ala | Ser | Gln | Ser | Val | Ser | Ser | Asn |
| | 20 | | | | | | | | | | | | | | 30 |
| Leu | Ala | Trp | Tyr | Gln | Gln | Lys | Pro | Gly | Gln | Ala | Pro | Arg | Leu | Leu | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Gly | Ala | Ser | Thr | Arg | Ala | Ile | Gly | Ile | Pro | Ala | Arg | Phe | Ser | Gly |
| | | 50 | | | | | 55 | | | | | 60 | | | |
| Ser | Gly | Ser | Gly | Thr | Glu | Phe | Thr | Leu | Thr | Ile | Ser | Ser | Leu | Gln | Ser |
| | | 65 | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Asp | Phe | Ala | Val | Tyr | Tyr | Cys | Gln | Gln | Tyr | Asn | Asn | Trp | Pro | Leu |
| | | | 85 | | | | | | 90 | | | | | | 95 |
| Thr | Phe | Gly | Gly | Gly | Thr | Lys | Val | Glu | Ile | Lys | Arg | Thr | Val | Ala | Ala |
| | | | 100 | | | | | 105 | | | | | | | 110 |
| Pro | Ser | Val | Phe | Ile | Phe | Pro | | | | | | | | | |
| | | | 115 | | | | | | | | | | | | |

<210> 79

<211> 514

<212> DNA

<213> homo sapiens

<400> 79

gaggcagaggt gaaaaagccc ggggagatctc tgaagatctc ctgttaagggt tctggatata 60
attttatcatc ctactggatc ggctgggtgc gccagatgcc cgggaaaggc ctggagtgga 120
tggggatcat ctctccttgt gactctgata ccagatacag cccgtccctc caaggccagg 180
tcaccatctc agccgacaag tccatcagca ccgcctacat gcagtgaggc agcctgaagg 240
cctcggacac cgccatgtat tactgtgcga gacagtatga ttacgtttgg gggagttatc 300
gttatacagg gtggttcgac ccctggggcc agggAACCTT ggtcaccgct tcctcagcct 360
ccaccaaggg cccatcggtc ttccccctgg cgcgcgtc caggagcacc tccgagagca 420
cagcggccctt gggctgcctg gtcaaggact actccccga accggtgacg gtgtcgtgga 480
actcaggcgc tctgaccagc ggcgtgcaca cctt 514

<210> 80

<211> 170

<212> PRT

<213> homo sapiens

<400> 80

Ala Glu Val Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly
1 5 10 15
Ser Gly Tyr Asn Phe Ile Ser Tyr Trp Ile Gly Trp Val Arg Gln Met
20 25 30
Pro Gly Lys Gly Leu Glu Trp Met Gly Ile Ile Ser Pro Gly Asp Ser
35 40 45
Asp Thr Arg Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala
50 55 60
Asp Lys Ser Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala
65 70 75 80
Ser Asp Thr Ala Met Tyr Tyr Cys Ala Arg Gln Tyr Asp Tyr Val Trp
85 90 95
Gly Ser Tyr Arg Tyr Thr Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr
100 105 110
Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
115 120 125
Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly
130 135 140
Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
145 150 155 160
Ser Gly Ala Leu Thr Ser Gly Val His Thr
165 170

<210> 81

<211> 462

<212> DNA

<213> homo sapiens

<400> 81

gaaatagaga tgacgcagtc tccagccacc ctgtctgtgt ctccaggggga aagagccacc 60
ctttcctgca gggccagtca gagtgtagc agcaatttag cctggtagca gcagaaacct 120
ggccagggctc ccaggctcct catctatggt gcatccacca gggccattgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcaacttc caatcagcag cctgcagtc 240
gaagattttg cagtttata ctgtcagcag tataataact ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 360
tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tc 462

<210> 82

<211> 154

<212> PRT

<213> homo sapiens

<400> 82

Glu Ile Glu Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Gly Ala Ser Thr Arg Ala Ile Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser

| | | | |
|---|-----|-----|----|
| 65 | 70 | 75 | 80 |
| Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu | | | |
| 85 | 90 | 95 | |
| Thr Phe Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala | | | |
| 100 | 105 | 110 | |
| Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly | | | |
| 115 | 120 | 125 | |
| Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala | | | |
| 130 | 135 | 140 | |
| Lys Val Gln Trp Lys Val Asp Asn Ala Leu | | | |
| 145 | 150 | | |

<210> 83
<211> 21
<212> DNA
<213> *rattus norvegicus*

<400> 83
acaagatggtaaggcggt g

21

<210> 84
<211> 20
<212> DNA
<213> *rattus norvegicus*

<400> 84
agaaggcagc cctggtaacc

20

<210> 85
<211> 22
<212> DNA
<213> *rattus norvegicus*

<400> 85
cggttttggc cgtatcgac gc

22

<210> 86
<211> 19
<212> DNA
<213> *rattus norvegicus*

<400> 86
ttcttgatct ggcccccata

19

<210> 87
<211> 21
<212> DNA
<213> *rattus norvegicus*

<400> 87
ttgacgctgc tgggttaca g

21

<210> 88
<211> 23

| | | |
|--------------------------------|--|----|
| <212> DNA | | |
| <213> <i>rattus norvegicus</i> | | |
| | | |
| <400> 88 | | |
| cagtgcagcg cttcacctcc aca | | 23 |
| | | |
| <210> 89 | | |
| <211> 20 | | |
| <212> DNA | | |
| <213> <i>rattus norvegicus</i> | | |
| | | |
| <400> 89 | | |
| gcaagacgcg tacagagggtg | | 20 |
| | | |
| <210> 90 | | |
| <211> 19 | | |
| <212> DNA | | |
| <213> <i>rattus norvegicus</i> | | |
| | | |
| <400> 90 | | |
| gaagttggca ttggtgcgaa | | 19 |
| | | |
| <210> 91 | | |
| <211> 24 | | |
| <212> DNA | | |
| <213> <i>rattus norvegicus</i> | | |
| | | |
| <400> 91 | | |
| tccagatctc gcggaacctc atcg | | 24 |
| | | |
| <210> 92 | | |
| <211> 20 | | |
| <212> DNA | | |
| <213> <i>rattus norvegicus</i> | | |
| | | |
| <400> 92 | | |
| cagcaagttg cagctctcca | | 20 |
| | | |
| <210> 93 | | |
| <211> 20 | | |
| <212> DNA | | |
| <213> <i>rattus norvegicus</i> | | |
| | | |
| <400> 93 | | |
| gacaactctc tcatgccggg | | 20 |
| | | |
| <210> 94 | | |
| <211> 25 | | |
| <212> DNA | | |
| <213> <i>rattus norvegicus</i> | | |
| | | |
| <400> 94 | | |
| cgacaaggag cagaacggag tgcaa | | 25 |
| | | |
| <210> 95 | | |

<211> 20
<212> DNA
<213> *rattus norvegicus*

<400> 95
atcgggacac ttttgcgact

20

<210> 96
<211> 20
<212> DNA
<213> *rattus norvegicus*

<400> 96
gtgcctgtca cccgaatgtt

20

<210> 97
<211> 23
<212> DNA
<213> *rattus norvegicus*

<400> 97
ttgcgcatacg ccaacctcag gag

23